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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/767,541	01/29/2004	Wayne E. Vick	45626/284121	5361

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EXAMINER

SPERTY, ARDEN B

ART UNIT PAPER NUMBER

1771

DATE MAILED: 03/09/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/767,541

Applicant(s)

VICK, WAYNE E.

Examiner

Arden B. Sperty

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1771

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Application filed 1/29/04.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 and 41-49 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10, 41-49 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date several.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

NON-FINAL OFFICE ACTION

1. Claims 42-46, 48 and 49 are objected to because of the following informalities:

The claims improperly depend from cancelled claim 40. Applicant's representative, Christopher Chan, confirmed in a telephone interview on November 21, 2005, that claims 42-46, 48 and 49 should depend from claim 41. Counsel further indicated that the dependencies would be corrected in response to the first office action. Therefore, appropriate correction is required in response to this, the first office action.

Specification

2. The specification is objected to for the use of the trademark KOSA, Type 792, without a description of the trademarked material. The examiner's research reveals that KOSA, Type 792, is a high-tenacity polyester yarn. However, this information may not always be readily available, should the pending application issue as a patent. This is especially relevant in view of a statement made by INVISTA (See attached www.invista.com/kosa.shtml), "The INVISTA and KoSa businesses have been combined into one integrated company named INVISTA." Support for this objection includes MPEP 2173.05(u), which addresses the use of trademarks in claims, but is also relevant to the general use of trademarks in patent applications "... [A] trademark or trade name is used to identify a source of goods, and not the goods themselves. Thus a trademark or trade name does not identify or describe the goods associated with the trademark or trade name." Although the use of trademarks is permissible in patent applications, a brief description of the trademarked material is necessary in this

instance. Amending the specification to include a brief description of the Type 792 material generally will not constitute new matter.

Page 17 of the specification refers to TREVIRA, manufactured by KoSa. For the same reasons as stated above, a brief description of the trademarked material is necessary in this instance.

3. The disclosure is further objected to because it does not provide antecedent basis for the claimed "substrate." Appropriate correction is required.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claims 1-10 and 41-49 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for a specific yarn (KOSA Type 792, denier 1000, 1300, or 1500) meeting the property requirements of the first layer, does not reasonably provide enablement for all materials which would meet the claimed property requirements. The specification does not indicate or suggest any other materials which could be used to meet the limitations for the first layer. Hence, the specification does not enable any person skilled in the art to ascertain, without undue experimentation, materials for the first layer which would meet the claim requirements. Therefore, the claims are rejected as non-enabling.

6. Furthermore, claims 1-10 and 41-49 are rejected under 35 USC 112, first paragraph, because the specification does not provide enablement for materials suitable for use as the "substrate."

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claims 1-10 and 41-49 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 1 and 41 recite physical properties of yarns, without setting forth structural or chemical characteristics of the yarns. According to *Ex parte SLOB* 157 USPQ 172, claims merely setting forth physical properties, and not setting forth specific compositions which would meet such characteristics, are invalid as vague, indefinite, and functional since they cover any conceivable combination of ingredients either presently existing or which might be discovered in the future and which would impart desired characteristics. Accordingly, claims 1-10 and 41-49 are indefinite for reciting only the desired properties of the yarns.

9. Claims 1 and 41 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is unclear how many layers are implied by lines 6-7 of claims 1 and 41. Does the second layer include a nonwoven fabric AND a substrate? Is it merely intended that the second layer is a nonwoven, and that the second layer is

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attached to the first layer? If so, why is there reference to a substrate? Where is the substrate described in the specification? Is mention of a substrate necessary? It appears that the mention of a substrate renders the claim unclear. Suggested language includes, "a second layer comprising nonwoven fabric, the second layer attached to the first layer." The claims will be examined according to this interpretation, since the specification does not seem to imply that a nonwoven AND a substrate are required.

10. Claims 4 and 44 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The claims refer to yarns positioned side-by-side and together and woven and parallel to a longitudinal axis. It is not clear what structure, if any, could possess all of the claimed features at the same time. For instance, it is unclear how each yarn of a woven material could be parallel to a single axis. Claims 4 and 44 are not currently examined because it is not clear what structure is implied.

Claim Rejections - 35 USC § 102/103

11. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. Claims 1, 3, 10, 41 and 43, are rejected under 35 U.S.C. 102(b) as being anticipated by, or in the alternative, under 35 USC 103(a) as unpatentable over US Patent 5695373 to Blackmore et al.

The Blackmore reference teaches reinforcing materials for roofing composites. In one aspect, a first layer comprises continuous filament polyester yarns in a range from about 50 to 2000 denier. The first layer of the reference is analogous to the claimed first layer. The reference does not recite the creep or percent elongation, but the properties are presumed to be inherent in a polyester filament having a denier of about 50 to about 2000. The burden is shifted to Applicant to prove otherwise. See *In re Fitzgerald*, 205 USPQ 594. In the alternative, it would have been obvious to provide filament yarns with a low creep and elongation. Note *In re Best*, 195 USPQ 433 (CCPA 1977), as to the providing of this rejection under 35 USC 102, or in the alternative under 35 USC 103(a). The reinforcing material taught by the reference further includes a second layer of nonwoven glass mat, which is analogous to the claimed second layer. (col. 3, lines 19-35). Thus, the limitations of claims 1 and 41 are met.

Regarding claims 3 and 43, an adhesive secures the first layer to the second layer, thus meeting the requirements of the claim (col. 3, lines 31-35).

Regarding claim 10, the denier range of the first layer encompasses the claimed value.

Claim Rejections - 35 USC § 103

13. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

14. Claims 1-3, 5-10, 41-43, and 45-49 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent 6089802 to Bullock.

15. The Bullock reference teaches a load restraint system including adhesive-coated strips (Abstract). The strips comprise a polyester strip, preferably a film of spunbonded olefin (col. 5, lines 41-49). This strip is analogous to the claimed second layer, and meets the limitations of claims 2 and 42. The strip may be inlaid with polyester or polyethylene fiber reinforcement strands **40**, which run longitudinally and are in a parallel array (col. 5, lines 51-57). These strands are analogous to the yarns of the claimed first layer. Additional reinforcing strands **42**, or reinforcing straps **43**, may be used in conjunction with reinforcing strands **40**, to provide added strength. The reference is silent with respect to the percent elongation and creep properties of the reinforcing strands **42**, which are analogous to the claimed first layer. The reference describes the arrangement of the polyester reinforcing strands, and indicates that the

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fibers may be comprised of single strands or bundles of many strands. Therefore it is left to one of ordinary skill in the art to select known polyester strands, and/or bundles thereof, on the basis of their suitability for the intended use. *In re Leshin*, 125 USPQ 416. Low percent elongation and creep properties are implied in a product resistant to axial lengthening (col. 3, lines 59-61), thus the limitations of claim 1 are met. Further regarding the denier values required in claims 10 and 41, absent a showing of unexpected results, it would have been obvious for one of ordinary skill in the art to determine, without undue experimentation, the optimal polyester reinforcing strands, motivated by the desire for a product that is resistant to axial lengthening (col. 3, lines 59-61).

16. Regarding claims 3 and 43, the reference is not concerned with the method of bonding used to adhere the reinforcing strands to the strip **24**. The reference teaches that the strands may be "inlaid." (col. 5, lines 51-53). It would have been obvious to one of ordinary skill in the art to employ a known bonding method to accomplish the goals of the prior art. "Inlaid" encompasses a number of bonding methods, including adhesive and/or thermal bonding. Absent a showing of unexpected results, no patentable distinction is seen over the prior art.

17. Regarding claims 5 and 45, an adhesive coating is applied to the side of the restraining strip which is intended for binding to the wall of a container (col. 5, lines 63+). The adhesive is releasable from the release paper **34**, as well as from the side of the container (col. 7, line 63 to col. 8, line 6).

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18. Regarding claims 6-7, and 46-47, the reinforcing strips **42** are analogous to the claimed first layer, as stated above. The figures indicate a sinusoidal configuration. The disclosure recites additional fiber configurations, including woven, patterned, longitudinal, lateral, diagonal, or combinations thereof (col. 6, lines 4-12). Therefore it is reasonable to presume that the configuration or placement of the reinforcing strips **42** on the strip **24**, is easily determined by one of ordinary skill in the art based upon the intended use. Absent a showing of unexpected results, the teaching of the prior art is seen to encompass the claimed arrangement of parts.

19. Regarding claims 8 and 48, the prior art is silent with respect to the thickness of the materials, and discloses an exemplary width of fifteen inches (col. 5, lines 45-47). It would have been obvious to determine the workable thickness and width ranges based upon the desired strength; extremely heavy cargo requires higher strength, while lighter cargo requires less strength. The claimed dimensions appear to be no more than a preferred embodiment, and do not appear to provide unexpected results.

20. Since claims 9 and 49 recite functional language, without structure required to meet the function, the additional reinforcing straps **43**, or the release paper **34**, may be considered analogous to the claimed reinforcement strap. Both are coupled to the composite material. Both run parallel to the longitudinal axis of the strap. Alternatively, an overlapping end formed in use of the restraining strap may be considered a "reinforcing strap," as it is coupled to the first piece of restraining strap, and is positioned generally parallel to the longitudinal axis of the strap.

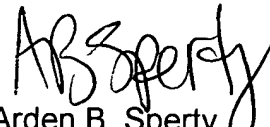
Conclusion

21. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Additional pertinent prior art includes US Patents 5399419 and 3713936.

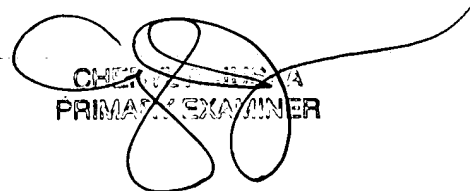
22. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Arden B. Sperty whose telephone number is (571)272-1543. The examiner can normally be reached on M-Th, 08:00-16:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on (571)272-1478. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Arden B. Sperty
Examiner
Art Unit 1771

March 02, 2006


CHIEF OF ART UNIT 1771
PRIMATE EXAMINER